

IN THE CLAIMS:

1. (Previously Presented) A method of managing flow of datagram traffic, the method comprising:

providing a first networked device that is operably connected to a second networked device;

transferring datagrams from a first port of the first device to a first port of the second device using a pathway that is operably connected to a second port of the first device and a second port of the second device;

selectively pausing an individual port on the first device that is causing over-subscription of the first port of the second device; and

transferring datagrams from a third port of the first device to the first port of the second device using the pathway that is operably connected to the second port of the first device and the second port of the second device, while the individual port on the first device is paused.

2. (Previously Presented) The method of claim 1, further comprising:
re-activating a paused port by transmitting a re-activation signal to the paused port.

3. (Previously Presented) The method of claim 1, further comprising:

re-activating a paused port pursuant to the detection of a condition wherein the first port of the second device has datagram traffic flowing therethrough in an amount that is below a lower trigger value.

4. (Previously Presented) The method of claim 1, further comprising:
re-activating a paused port pursuant to the passage of a pre-determined time increment.

5. (Previously Presented) The method of claim 1, wherein the selectively pausing comprises using in-band control frames to pause the individual port.

6. (Previously Presented) The method of claim 1, wherein the selectively pausing comprises using separate pathways between the first and second networked devices to transmit datagrams and control frames.

7. (Previously Presented) The method of claim 1, wherein the selectively pausing comprises using a non-memory-consuming communication to pause the individual port.

8. (Previously Presented) The method of claim 1, wherein the selectively pausing comprises referencing a listing of ports that are over-subscribed.

9. (Previously Presented) The method of claim 8, wherein the selectively pausing comprises periodically updating the listing of ports that are over-subscribed.

10. (Previously Presented) The method of claim 1, wherein the selectively pausing comprises selectively pausing individual ports on devices other than the first and second device.

11. (Previously Presented) A method of managing flow of datagram traffic, the method comprising:

providing a first networked device that is operably connected to a second networked device;

transferring datagrams from a first port of the first device to a first port of the second device using a pathway that is operably connected to a second port of the first device and a second port of the second device;

signaling the first port of the first device to send fewer datagrams to the first port of the second device when an over-subscription is detected at the first port of the second device; and

transferring datagrams from a third port of the first device to the first port of the second device using the pathway that is operably connected to the second port of the first

device and the second port of the second device, while the first port of the first device is sending fewer datagrams to the first port of the second device.

12. (Previously Presented) The method of claim 11, wherein the signaling comprises signaling the first port of the first device to send datagrams in proportion to a total number of datagrams attempting to reach the first port of the second device.

13. (Previously Presented) The method of claim 11, wherein the signaling is performed using a non-memory-consuming communication to signal the first port of the first device.

14. (Previously Presented) The method of claim 11, wherein the signaling comprises broadcasting a signal that alerts ports on the network that the first port of the second device is over-subscribed.

15. (Previously Presented) The method of claim 11, wherein the transferring comprises referencing a listing of ports on the network that are over-subscribed before transferring a datagram between the first port of the first device to the first port of the second device.

16. (Previously Presented) The method of claim 11, further comprising:

resuming unrestricted datagram transmission to the first port of the second device by broadcasting a signal.

17. (Previously Presented) The method of claim 11, further comprising:
resuming unrestricted datagram transmission to the first port of the second device when a total number of datagrams attempting to reach the first port of the second device falls below a lower trigger value.

18. (Previously Presented) The method of claim 11, further comprising:
resuming unrestricted datagram transmission to the first port of the second device after passage of a pre-determined time increment.

19. (Previously Presented) The method of claim 11, wherein the signaling comprises using in-band control frames.

20. (Previously Presented) The method of claim 11, wherein the signaling comprises using a separate link to transmit control frames.

21. (Previously Presented) A communications system comprising:
a first data distribution means operably connected to a second data distribution means;

a first communications means for transferring datagrams from a first port of the first data distribution means to a first port of the second data distribution means;

control means for selectively pausing individual ports that are causing over-subscription of the first port of the second data distribution means; and

means for transferring datagrams from a second port of the first data distribution means to the first port of the second data distribution means, while the individual ports are paused.

22. (Original) The system of claim 21, further comprising:

a second communications means between the first data distribution means and the second data distribution means wherein the second communications means is non-lossy.

23. (Original) The system of claim 21, further comprising storage means for storing information concerning which ports in the network are over-subscribed.

24. (Previously Presented) A communications system comprising:

a first data distribution means operably connected to a second data distribution means for distributing datagrams over a network;

first communications means for transferring the datagrams from a first port of the first data distribution means to a first port of the second data distribution means;

control means for signaling the first port of the first data distribution means to send fewer datagrams to the first port of the second data distribution means when an over-subscription is detected at the first port of the second data distribution means; and

means for transferring datagrams from a second port of the first data distribution means to the first port of the second data distribution means, while the first port of the first data distribution means is sending fewer datagrams to the first port of the second data distribution means.

25. (Original) The system of claim 24, further comprising:

a second communications means for allowing communication between the first data distribution means and the second data distribution means, wherein the second communications means is non-lossy.

26. (Original) The system of claim 24, further comprising:

storage means for storing information concerning which ports in the network are over-subscribed.

27. (Previously Presented) A communications system comprising:

a first device operably connected to a second device;

a first controller configured to transfer datagrams from a first port of the first device to a first port of the second device;

a second controller configured to selectively pause individual ports in the first device that are contributing to over-subscription of the first port of the second device,

wherein the first controller is further configured to transfer datagrams from a second port of the first device to the first port of the second device, while the individual ports are paused.

28. (Previously Presented) The system of claim 27, further comprising:

a storage unit configured to store information concerning which ports in the second device are over-subscribed.

29. (Previously Presented) A communications system comprising:

a first device operably connected to a second device;

a first controller configured to transfer datagrams from a first port of the first device to a first port of the second device; and

a second controller configured to signal the first port of the first device to send fewer datagrams to the first port of the second device when an over-subscription is detected at the first port of the second device,

wherein the first controller is further configured to transfer datagrams from at least a second port of the first device to the first port of the second device, while the first port of the first device is sending fewer datagrams to the second port of the second device.

30. (Previously Presented) The system of claim 29, further comprising:

a storage unit configured to store information concerning which ports in the network are over-subscribed.